

Number of wells that are injectors

12

Is the construction adequate?

Yes ▾

Number of Other Wells

0

Is the construction adequate?

NA ▾

Is there a corrective action plan?

NA ▾

Number of wells that penetrate into or through the confining zone

34

 D. Maps and Cross-sections of USDWs

Formation name of lowest USDW:

Glacial Drift

Is there a stratigraphic column that shows all USDWs?

Yes ▾

Depth to base of lowest USDW(ft)

620

Method for USDW determination

Hydrogeologic test holes.

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 F. Maps and Cross-sections of the geologic structure of the area

Is there a regional cross-section map and structure contour map

Yes ▾

Is there a site specific cross-section map and structure contour map

Yes ▾

	Injection Interval	Confining Zone
Formation Name	Amherstburg Formation <input type="button" value=""/>	Detroit River Group <input type="button" value=""/>
Lithology	Sandstone <input type="button" value=""/>	Anhydrite <input type="button" value=""/>
Depth to Top (ft)	4962 <input type="button" value=""/>	4088 <input type="button" value=""/>
Depth to Bottom (ft)	5550 <input type="button" value=""/>	4962 <input type="button" value=""/>
Permeability (md)	<input type="button" value=""/>	<input type="button" value=""/>
Porosity (%)	<input type="button" value=""/>	<input type="button" value=""/>

What is the separation between the top of the injection zone and the base of the USDW?

4342

Were the presence and extent of natural or induced fractures in the injection and confining zones adequately investigated?

Yes ▾

 H. Operating Data

The injectate is

liquid ▾

Injection Rate Unit

Gallons per minute ▾

Method used to determine maximum injection pressure

Fracture Gradient equation ▾

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Source of fracture gradient

Default ▾

Known fracture gradient

0.80 ▾

Maximum expected injection rate(gpm)

864000

Maximum enforceable injection rate(gpm)

Maximum specific gravity of injectate

1.25

Add Safety Factor For Specific Gravity?

▾

Friction Allowance

Technical basis for friction allowance

Maximum injection pressure(r5_mip_calc_formula) btr5MipCalcFormula / lbr5MipCalcFormula

1269 1269

pH range

Does the corrosion monitoring comply with 40 CFR part 146.68(c)?

NA ▾

Is corrosion monitoring required

No ▾

What is the composition of the annulus fluid

Brine Water with Corrosion Inhibitors ▾

Does the formation testing proposed meet CFR 146.12 (d) and (e) [for non-haz] or 146.66 [for haz] or 146.32(b) [Class III]?
Are there adequate procedures for acquiring formation pressures above the injection interval?
Are there adequate sampling and analysis procedures for the first aquifer overlying the confining zone?
Are there adequate sampling and analysis procedures for the injection zone?
Will there be coring?
Proposed method for determining fracture gradient

Yes
Yes
Yes
NA
No
step rate test

J. Stimulation Program

Is a stimulation proposed
What is the type of stimulation?
Is this type of stimulation approved?

Yes
acid
Yes

K. Injection Procedures

Is there a plant plan that shows the stream flow lines?
Are there descriptions of any filters, storage tanks, and/or pretreatment?
What is the storage tank capacity?
What is the rate capacity of the pumps?
What is the pump capacity type?
Is an alarm system proposed?
What are the alarm thresholds?
The shut-off system will be
What are the shut-off thresholds?

Yes
Yes
147000
660
(None)
Yes

Manual
MIP

L. Construction Procedures

Is this a new well, existing or a conversion

New

M. Construction Details

	Pipe/Hole set					Cemented	
	From top (ft)	To base(ft)	Pipe Size(in)	Hole Size(in)	Number of sacks of cement	From top(ft)	To base(ft)
Conductor							
Surface Casing	0	800	9.625	13.375	320	0	800
Intermediate Casing							
Long String Casing	0	5160	7	8.75	670	0	5160
Liner							
Perforated Section							
Open Hole	5160	5550		8.75			
Packer depth		5050					
Tail Pipe depth							
What is the plug back total depth?		5550					
What is the total depth of the well?		5550					
Is the packer set 100 ft or less above the injection zone?		Yes					
Tubing material							
Tubing size							

O. Plans for well failure

What actions are proposed if MI is lost?

shut-in, notify EPA, CP &

Save Cancel

P. Monitoring Program

Where is the sample located?

At discharge of final filtra

Is there an adequate description of source(s) of waste?

Yes ▾

Is there a representative of waste analysis?

Yes ▾

What's the frequency of physical and chemical monitoring?

What's the frequency of monitoring reports?

Is there adequate waste characterization including compatibility?

Yes ▾

Is a ground water monitoring plan included?

NA ▾

Please describe waste recharacterization.

Is QA/QC adequate?

Yes ▾

Is WAP adequate?

Yes ▾

Is the monitoring and recording system for injection pressure, flow rate, volume, and annulus pressure adequate?

Yes ▾

Save Cancel

Q. Plugging and Abandonment Plan

How many plugs will be used to plug the well?

Generate Plugs

Signed estimate of plugging and abandonment costs (and post-closure costs, if applicable) by an independent firm

Yes ▾

Estimated Plugging Cost

30400

Estimated Post Closure Cost

Date the plan was signed

Date of 3rd Party Plugging Cost Estimate

9/15/2014

Save Cancel

Add Plug

R. Necessary Resources

Available Mechanisms

Selected Mechanisms

Individual state bond DEPNO59831331

Individual state bond DEPNO59831311

Individual state bond DEPNO59831321

Add

Individual state bond DEPNO59831311

Edit Mechanisms

S. Aquifer Exemptions

Is the company asking for an aquifer exemption?

N ▾

Aquifer Name

None ▾

Save Cancel

T. Existing Permits

List Existing permits and permit numbers

N/A

List outstanding permit applications

MI-133-11-0004, -0005, 0

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U. Description of Business

Business description

Production and manufacturing
of agricultural fertilizer.

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V. Compliance with other Federal Acts

Any designated wild and scenic rivers within the AOP?

No ▾

Has the permit writer evaluated whether there are endangered or threatened species in the AOR?

Are there any listed species in the AOR?

Will the permit need an ESA Clause?

Was the Historic Preservation Office contacted?

Are there historic resources present?

Is the well located in a coastal zone?

If yes, then has the permit writer contacted the State Coastal Management Program in writing?

Does the permit application call for the diverting, impounding, deepening or controlling any surface water body in excess of 10 acres?

EJ number

Yes ▾
No ▾
No ▾
Yes ▾
No ▾
No ▾
NA ▾
No ▾
2 ej screen

X. Confidentiality

Has any part of this permit application been declared confidential by the operator?

No ▾

Other

Comments

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Review Completion

Reviewer

BATKA ALLAN ▾

Signature Date

1/20/2016